We Claim:

1. A heat pump system having an indoor coil that operates as a condenser when the system is in a heating mode and an outdoor coil that operates as an evaporator when the system is in said heating mode, wherein said system includes:

adjustable airflow means for moving supply air over the indoor coil;

a sensor means for measuring outdoor ambient temperatures and sending ambient temperature data to a programmable computer for adjusting said airflow means;

program means in said computer containing a schedule for continuously adjusting the airflow means in response to changes in ambient temperatures to maintain the temperature of the supply air moving over the indoor coil at a constant level.

2. The system of claim 1 wherein said adjustable airflow means includes a variable speed fan.

3. The system of claim 1 wherein said supply air temperature is maintained at a level that is high enough to avoid a cold blow condition in the supply airflow.

4. The system of claim 3 wherein the discharge pressure of the compressor is maintained at a level such that the vapor line pressure remains below an allowable design pressure.

5. The system of claim 3 wherein said supply air temperature is maintained at a constant level above 98°F and a vapor line pressure below 370PSIG.

6. The system of claim 1 wherein the temperature of the supply air is maintained as high as possible while controlling the vapor line pressure and compressor pressure ratio within allowed limits.

7. The system of claim 3 wherein said vapor line pressure limit is within established standard refrigeration vapor line piping pressure limits.

8. The system of claim 7 wherein said compressor pressure ration limit is within established limits for reliable operation of a compressor.

9. A heat pump system having an indoor coil that operates as a condenser when the system is in a heating mode and an outdoor coil that operates as an evaporator when the system is in said heating mode, wherein said system includes:

a compressor having a discharge pressure;

adjustable airflow means for moving supply air over the indoor coil;

a sensor means for measuring outdoor ambient temperatures and sending ambient temperature data to a programmable computer for adjusting said airflow means;

program means in said computer containing a schedule for continuously adjusting the airflow means in response to changes in ambient temperatures to maintain the compressor discharge pressure within reliable operating limits.

10. The system of claim 9 wherein said adjustable airflow means includes a variable speed fan.

11. The system of claim 10 wherein said operation limits are within established standard limits for refrigeration grade vapor line piping..

12. The system of claim 11 wherein the discharge pressure of the compressor is maintained at a substantially constant level.

13. A method of operating a heat pump in the heating mode, said heat pump having a compressor, an indoor coil serving as a condenser in the heating mode, and an outdoor coil acting as an evaporator in the heating, said method including the steps of:

sensing the outdoor ambient temperature;

continually adjusting the indoor airflow over the indoor coil in response to changes in the outdoor temperature to maintain the supply air temperature at a constant level.

14. The method of claim 13 wherein the indoor airflow over the indoor coil is adjusted by regulating the speed of a coil fan motor for passing return air over the coil.

15. The method of claim 13 wherein the temperature of the supply air is maintained at a level above which a cold blow condition occurs.

16. The method of claim 13 that includes the further step of maintaining the discharge pressure of the compressor at a level below a maximum allowable vapor line pressure for the system.

17. A method of operating a heat pump in the heating mode, said heat pump having a compressor, an indoor coil serving as a condenser in the heating mode, and an outdoor coil acting as an evaporator in the heating, said method including the steps of:

sensing the outdoor ambient temperature;

continually adjusting the indoor airflow over the indoor coil in response to changes in the outdoor temperature to maintain compressor discharge pressure within reliable operating limits.

18. The method of claim 17 where the indoor airflow over the indoor coil is adjusted by regulating the speed of a coil fan motor for passing return air over the coil.

19. The method of claim 18 wherein said operating limits are within established standard limits for refrigeration guide vapor line piping.

20. The method of claim 19 that includes the further step of maintaining the discharge pressure of the compressor at a substantially constant level.